

Programme: Advanced Course (Hydrometallurgy)

Date: 21st and 22nd November 2022

Venue: New Hotel, 16 Filellinon Street, Syntagma Square, Athens (<https://www.yeshotels.gr/newhotel/>)

08:45-09:00	Opening Remarks	
	Day 1: Monday 21-11-2022	Lecturer
09:00-09:45	Advances in Understanding of the Hydrometallurgical Unit Operations in Non-Ferrous Extractive Metallurgy	Srećko Stopic – Invited Speaker (IME - RWTH Aachen)
10:00-10:45	Sustainable agitator and reactor design for demanding applications in hydrometallurgy	Tuomas Hirsi (Metso Outotec)
11:00-11.30	Coffee Break	
11:30-12:15	Thermodynamics in hydrometallurgy	Aromaa Jari (Aalto University)
12:30-13:15	Hydrometallurgical circuits	Yongxiang Yang (TU Delft)
13:15-14:15	Lunch	
14:15-15:00	Alkaline electrolysis in iron ores	Panias Dimitrios (NTUA)
15:15-16:00	Kinetics in hydrometallurgical processes I	Jafar Safarian (NTNU)
16:15-16:45	Coffee Break	
16:45-17:30	Kinetics in hydrometallurgical processes II	Jafar Safarian (NTNU)
	Day 2: Tuesday 22-11-2022	
Thematic Session: Greek Metals Recycling – Industrial Cases		
09:00-09:45	Secondary Lead Production from Spent Lead Acid Batteries	Athanasios Karakatsanis (SUNLIGHT RECYCLING)
10:00-10:45	Challenges in Copper Recycling in the Semi-Fabricators' Industry	Nikolaos Marinakis (Halcor)
11:00-11:45	The TETALEAD process	Lena Sundqvist (LTU)
11:45-13:00	Lunch	
13:00-14:00	Transportation from New Hotel	MONOLITHOS
14:00-14:45	MONOLITHOS hydrometallurgical process presentation	MONOLITHOS
14:45-15:30	MONOLITHOS catalyst synthetic protocol for substituting CRMs	MONOLITHOS
15:30-16:30	Lab tour demonstrating the aforementioned procedures	MONOLITHOS
16:30-17:30	Cocktails for participants	MONOLITHOS

Programme: Seminar (Hydrometallurgy)

23rd and 24th November 2022

Day 1: Wednesday 23-11-2022 (Host: Mytilinaios S.A.)		
07:00-09.45	Transportation from Athens to Seminar Venue (near the Mytilinaios industrial facilities)	
Thematic Session: Primary Aluminium Production		Lecturer
10:00-10:15	Opening Remarks	Mytilinaios S.A. Executive Personnel
10:15-11:00	Bauxite Mining	
11:15-12.00	Alumina Refining from Bauxite (The Bayer Process)	
12:15-12:45	Coffee Break	
12:45-13:30	Electrolytic Reduction of Alumina	Mytilinaios S.A. Executive Personnel
13:45-14:30	Bauxite Residue Handling and Reuse Potential (The Greek BR case)	
14:30-15:30	Lunch Break	
15:30-16:30	Field trip to Mytilineos S.A. plant	Dr. Efthymios Balomenos
16:30-19:15	Transportation from Mytilinaios S.A. plant to Athens	
Day 2: Thursday 24-11-2022 (Host NTUA, Venue: <u>New Hotel, 16 Filellinon Street, Syntagma Square, Athens</u>)		
Thematic Session: CRM extraction technologies by hydrometallurgical routes		
09:00-09:45	Lithium Ion Batteries (LIBs) recycling	Prof. Anthimos Xenidis, NTUA
09:45-10:15	Discussion	
10:15-11:00	Recovery of Critical Raw Materials from Residues: Processing and Extraction Techniques	Dr. Olga Chernoburova, University of Lorraine
11:00-11:30	Discussion	
11:30-12:00	Coffee Break	
12:00-12:45	Alternatives to Bauxite for Alumina Production – Dream or Potential?	Michail Vafeias, NTUA
12:45-13:15	Discussion	
13:15-14:30	Lunch Break	
14:30-15.15	Bauxite Residue as a potential Sc and REE source – Pilot Scale Research Highlights	Efthymios Balomenos, Mytilinaios S.A.
15:15-15:45	Discussion	
15:45-16.30	Acid leaching for high purity Si production from the innovative SisAl process	Mengyi Zhu, NTNU
16:30-17:15	Discussion	